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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,760	01/18/2002	Kazumi Nakayoshi	TSL942CON2	7128

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EXAMINER

SELLERS, ROBERT E

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/052,760

Applicant(s)

NAKAYOSHI ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-20 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 8-20 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/318,459.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

This application contains claims directed to the following patentably distinct species of the claimed invention:

- (A) The alkenyl radicals-containing polyorganosiloxanes.
- (B) The organohydrogensiloxanes.
- (C) The organosilicon compound-treated silver particles.
- (D) The platinum catalysts.
- (E) The presence or absence of the alkoxysilicon group-containing organosilicon, wherein if its presence is elected, a particular species thereof is identified.
- (F) The cure inhibitors.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 8-20 are generic.

A reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Catherine U. Brown on June 12, 2003, a provisional election was made with traverse to prosecute the the following species:

- (A) Dimethylvinylsiloxyl-endblocked polydimethylsiloxane.
- (B) Trimethylsiloxyl-endblocked polymethylhydrogensiloxane.
- (C) Silver flakes treated with dimethylvinylsiloxyl-endblocked dimethylpolysiloxane.
- (D) Chloroplatinic acid/vinylsiloxane complex.
- (E) The presence of the epoxy-endblocked polysiloxane containing dimethoxysiloxyl, methylvinylsiloxyl and dimethylsiloxyl units depicted on page 47, line 25 of the specification.
- (F) phenylbutynol.

Claims 8-15 and 17-20 embrace the elected species. Affirmation of this election must be made by applicant in replying to this Office action. Claim 16 is withdrawn from further consideration under 37 CFR 1.142(b) as being drawn to a non-elected species of (E).

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 10 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for 1,3,5,7-tetramethylcyclotetrasiloxane and 1,3,5,7,9-pentamethylcyclopentasiloxane (specification, page 10, lines 12 and 13), does not reasonably provide enablement for cyclosiloxane (c) which encompasses species not described. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. Furthermore, claim 10 defines a siloxane resin (d) as opposed to the silicone resins set forth on page 11, lines 8-12.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no clear line of demarcation between siloxane oligomer (a) and siloxane resin (d) since an oligomer embraces a resinous form and a resin includes oligomers.

Amendment of the siloxane resin (d) to the enabled silicone resin (see 35 U.S.C. 112, first paragraph, rejection) would not resolve the overlapping scope since a silicone resin encompasses siloxane oligomers.

The incorporation of the language of claim 14 into component (d) of claim 10 along with the cancellation of claim 14 would resolve both of the 35 U.S.C. 112, first and second paragraph, rejections with respect to this issue.

Claim 17 does not accurately depict the the epoxy-endblocked third structure since the vinyl group on the second siloxy group is not exhibited and the values for "a" and "b" of at least one are not denoted in accordance with page 26, lines 19-29.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayoshi et al. in view of Fukui et al. and Cole et al. Patent No. 4,604,424 and Japanese Patent No. 4,46962.

Nakayoshi et al. (col. 10, Example 2) shows a conductive adhesive comprising 100 parts by weight of an alkenyl groups-containing organopolysiloxane, an organohydrogensiloxane present in an amount to provide from 0.5-3 silicon-bonded hydrogen atoms per alkenyl group of the organopolysiloxane (col. 4, lines 54-57), 300 parts by weight of silver flakes, a chloroplatinic acid/methylvinylsiloxane dimer complex and 2.0 parts by weight of an epoxy end-blocked organosilicon compound containing diethoxysiloxy, dimethylsiloxy and methylvinylsiloxy units.

The claimed pre-treatment of the silver particles (C) with an organosilicon compound is not recited. Fukui et al. (col. 15, lines 18-27 and 44-52) discloses the treatment of silver particles with an organosilicon compound (col. 3, lines 16-40). It would have been obvious to treat the silver flakes of Nakayoshi et al. with the organosilicon compound of Fukui et al. in order to impart stabilization against oxidation and improve the dispersibility (col. 15, lines 24-27).

The claimed cure inhibitor (F) is not recited.

Cole et al. (col. 2, line 59 to col. 3, line sets forth a formulation containing 100 parts by weight of a polydiorganosiloxane with ethylenically unsaturated radicals, an organosilicon compound having silicon-bonded hydrogen atoms present in a quantity to provide from 1.5-8 silicon-bonded hydrogen atoms per vinyl radical (col. 5, lines 51-55), from 200-400 parts by weight of a thermally conductive filler, a hexachloroplatinic acid/vinyl-containing organosiloxane compound complex (col. 6, lines 7-10), and an inhibitor such as acetylenic alcohols (col. 6, lines 30-45).

The Japanese patent teaches a blend of an alkenyl groups-containing organopolysiloxane, an organohydrogenpolysiloxane, a filler, a platinum-silicone resin catalyst, and the elected species of phenylbutynol.

It would have been obvious to incorporate the acetylenic alcohol or phenylbutanol of Cole et al. and the Japanese patent into the composition of Nakayoshi et al. in order to prolong the pot life and enhance the storage stability.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kookootsedes et al. is directed to various acetylenic compounds for improving the storage stability of mixtures of unsaturated organopolysiloxanes, organohydrogenpolysiloxanes and platinum catalysts.

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Art Unit 1712